

Abstract of the Disclosure

An encoding apparatus includes an encoder for encoding an alpha-map signal for discriminating a background from an object of an input picture in motion compensation prediction (MV) + transform encoding which
5 uses MV in a domain of each of $N \times N$ transform coefficients (n), a transform circuit for transforming Pf into \underline{n} in accordance with the alpha-map signal, an inverse transform circuit for reconstructing Pf by
10 inversely transforming \underline{n} in accordance with the alpha-map signal, a selector for obtaining a motion compensation prediction value (p) in the mth layer ($m = 2$ to M) by switching \underline{p} in the mth layer and \underline{p} in the (m-1)th layer for each \underline{n} , the selector selecting \underline{p}
15 in the mth layer for \underline{n} by which a quantized output (Q) in the (m-1)th layer is 0 and selecting \underline{p} in the (m-1)th layer for \underline{n} by which $Q = 1$ or more, an adder for calculating a difference df between a prediction error signal in the mth layer and a dequantized output in the
20 (m-1)th layer, and an encoder for encoding and outputting the quantized signal of df. This encoding apparatus realizes SNR scalability in M layers.